

GlobalGuesser

Create a new project called GlobalGuesser*, where the asterisk is replaced by your last name. When you complete this project, export the .aia file to your computer, and submit it on TEAMS. If you work in Android Studio or XCode, zip up everything associated with the project and submit that.

In this project, you will create an app similar to the 'GeoGuesser' game available online, where a street view image is displayed, and players attempt to select the global location as close to where the image was taken as possible. In general, **the layout of the user interface is up to you**, but the purpose of this assignment is to familiarize yourself with some of the most basic and commonly-used Map components and functions.

I will be looking for a few general requirements:

- Include the Initialize method code for Screen1. On this code block, write a comment outlining the key functions of your app, the “extra” behavior you’ve included, and any limitations that may still be present
- Ensure your app’s components have sensible names for what they are (for example, scoreText is a better name than Label1)
- A bank of at least 10 images and their associated coordinates should be available to test the user. These need to be accessed through some type of list structure (i.e., not through copy-pasted code, long chains of conditionals, etc.).
- When an image is shown to the user, a map should then be made available for them to guess with. It is up to you if you want this displayed concurrently with the image or on a separate display. You may also decide whether you want to user to be able to zoom when making their guess.
- The user’s guess should be made by placing a Marker on the map. This can appear at a clicked location and/or be draggable—up to you. The user should somehow indicate their location is locked-in when done.
- The app should display the correct location and the guessed location concurrently on the map once the guess has been locked-in. It should also determine the distance between the markers and display this on the screen. See <https://www.movable-type.co.uk/scripts/latlong.html> and <https://en.wikipedia.org/wiki/Atan2> for more information on distance computations with GPS coordinates.
- The app should incorporate a scoring system for full credit. See rubric for more information.
- The user interface should be to some degree above-and-beyond aesthetically-pleasing for full credit.
- Bugs should be documented and/or error-checked for full credit.
- Do lists, loops, variables, and/or procedures simplify the app’s code (if applicable)?